NCI CANCER HUMAN BIOBANK (CAHUB) TO COLLECT BIOSPECIMENS FOR RESEARCH.

SUMMARY

The Biorepositories and Biospecimen Research Branch (BBRB) at NCI has developed the Cancer Human Biobank (caHUB), which is a unique infrastructure for collecting biospecimens for the purpose of conducting biospecimen research.

REFERENCE NUMBER

caHUB

PRODUCT TYPE

- Research Materials

KEYWORDS

- biospecimen
- immunohistochemistry

COLLABORATION OPPORTUNITY

This invention is available for licensing.

DESCRIPTION OF TECHNOLOGY

The Biorepositories and Biospecimen Research Branch (BBRB) at NCI has developed the Cancer Human Biobank (caHUB), which is a unique infrastructure for collecting biospecimens for the purpose of conducting biospecimen research. Through the caHUB initiative, NCI seeks to advance biospecimen science by investigating how different biospecimen collection, handling and processing procedures affect biospecimen molecular profiles. caHUB supports the collections of highly annotated biospecimens for the BBRB Biospecimen Pre-analytical Variables (BPV) Program.

The BPV Program is designed to systematically investigate the effects of individual pre-analytical variables on biospecimen quality. The results of this study will be used to develop evidence-based protocols for optimal collection, processing, and storage of biospecimens. Moreover, accumulated data from these activities will be widely disseminated to the research community to strengthen the standards for human biobanking.

Currently, the BPV program is collecting tumor specimens for the evaluation of two pre-analytical variables: the effect of variations in cold ischemia time and the effect of time in formalin on the molecular profiles of formalin-fixed paraffin-embedded tumor specimens. The BPV program is also collecting plasma specimens to evaluate the effects of the temperature of storage (-80 vs -190) and the duration of storage on molecular integrity of plasma samples caHUB is seeking collaborators interested in utilizing biospecimens from the BPV program to perform molecular analysis to evaluate how pre-analytical variables affect the molecular profiles of plasma and different tumor types.

Biospecimens from the BPV program will be made available to collaborators with the capability to perform molecular analysis as part of a collaborative research agreement with the NCI-BBRB. Examples of the types of analysis BBRB is interested in collaborating on include the following:

1. Performing immunohistochemistry to evaluate how pre-analytical variables affect the expression level of certain proteins.
2. Quantitative methylation-specific PCR to determine how pre-analytical variables affect the detection of known hypermethylated and/or hypomethylated promoters.
3. Evaluate how pre-analytical variables affect the results of clinical diagnostic or prognostic assays.

It is **expected** that collaborators will have the necessary resources to test these specimens within the context of a specific and approved research project to determine the impacts of specific variables on biospecimen quality and downstream molecular analysis. However, if funding resources are provided by BBRB, it will be outside of the collaborative agreement under a separate mechanism consistent with prevailing legal and policy requirements.

For more information about the Biospecimen Pre-analytical Variables Program, please click the following link: http://biospecimens.cancer.gov/programs/bpv/default.asp.

COMPETITIVE ADVANTAGES

In addition to biospecimens collected prospectively to suit the aims of the agreed upon study, selected collaborators will have access to BBRB's biospecimen science, informatics, ethical and legal expertise. Public products (e.g., SOPs, standards, guidelines, peer- reviewed manuscripts) derived from caHUB collaborations will be developed and released to the research community.

The NCI reserves the right to enter into only those collaborations that, in its discretion, will most effectively advance the mission of caHUB. This collaborative announcement is not a funding mechanism or a promise to enter into any specific agreement.

DEVELOPMENT STAGE

- Prototype

PATENT STATUS

- **Not Patented**

THERAPEUTIC AREA

- Cancer/Neoplasm